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THE EXHAUSTIVE PARTICLE =*ok* IN HILL MARI AND BEYOND

Abstract. The paper examines the semantics and distribution of the polyfunctional Hill Mari focus particle =*ok*. We describe two interpretations of =*ok* possible on a wide range of hosts: the exhaustive use and the counteradditive use; besides, we consider several uses that are only possible with a lexically or semantically conditioned set of entities. We argue that =*ok* falls into a class of devices with not-at-issue exhaustive inferences, along with the English *it*-cleft and some other cross-linguistic counterparts. We discuss the implications that the Hill Mari data have for the typology of this class of constructions: Hill Mari =*ok* suggests that discourse givenness of the denotation of the focus constituent is an important dimension along which such elements vary across languages. Besides, in this paper we draw an areal comparison of the Hill Mari =*ok* with its counterparts in the Volga-Kama languages: Meadow Mari, Chuvash, Tatar, Bashkir, and Udmurt. Although the origin and the general set of readings are the same, the syntactic behavior of =*ok*'s counterparts varies significantly.

Keywords: Finno-Ugric languages, Hill Mari, Volga-Kama languages, focus particles, exhaustive constructions, semantics, language contact.

1. Introduction

This paper examines the semantics and distribution of the Hill Mari focus particle =*ok*. It is illustrated by (1):

(1) *sedändon=**ok*** *vot* *jəlmä-žə-m=ät*
because_of_that=**EMPH** here language-POSS.3SG-ACC=ADD
lit'eratur-žə-m=at *jarat-ə̑kt-en* *mošt-en* (Mikrjakovo corpus)
literature-POSS.3SG-ACC=ADD love-CAUS-CVB be_able-PRF[3SG]
'It is because of that that she was able to make everyone love both language and literature.'

(1) is a natural example taken from a monologue. The main topic of this monologue is a schoolteacher. In this example, the particle attaches to the word *sedändon* 'because of that' and can be translated into English by means of an *it*-cleft. However, there are other occurrences of =*ok* which

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can hardly be translated with an *it*-cleft. Those are going to be demonstrated later.

The particle =*ok* is polyfunctional, which means that it is hardly possible to ascribe each and every token of =*ok* exactly the same semantics. In some cases, -*ok* is clearly lexically or semantically conditioned; several interpretations only arise with a closed set of entities. Short surveys of the semantics of =*ok* are contained in (Кашкин, Сидорова, Мордашова, Гарейшина, Учитель 2018; Козлов 2017). The particle =*ok*, as well as its counterparts in the Volga-Kama languages, will be hereafter glossed as EMPH.

The objective of this paper is threefold. First, we are going to describe the polyfunctionality of the Hill Mari focus particle =*ok*. We will argue that this particle falls into a class of devices with not-at-issue exhaustive inferences, along with the English *it*-cleft and some other cross-linguistic counterparts. Second, we are going to discuss the implications that the Hill Mari data have for the typology of this class of constructions. Hill Mari =*ok* suggests that the discourse givenness of the denotation of the focus constituent is an important dimension along which such elements vary across languages.

The third objective of the paper has to do with the diachrony of =*ok*. Hill Mari =*ok* is a loan from some Turkic language of the Volga-Kama area (presumably Chuvash); particles similar to it both in form and function are attested in several other languages of the area, including Finno-Ugric as well as Turkic. The historical relationship between =*ok* and its counterparts in the Volga-Kama languages is traced by Zakirova (Закирова 2023). In this paper, we draw an areal comparison of the Hill Mari =*ok* with its counterparts in the Volga-Kama area: Meadow Mari, Chuvash, Tatar, Bashkir, and Udmurt particles. Meadow Mari data come from the authors' fieldwork in the village of Privolžskij (Mari El Republic), Chuvash data from Maloe Karačkino[1] (Chuvash Republic), and Udmurt data from Šamardan (Udmurt Republic).[2] Tatar data were obtained from native speakers living in Moscow, Kazan (Republic of Tatarstan), and Volžsk (Mari El Republic) and represent different dialects. For Bashkir, we have preliminary elicited data from one speaker of a Southern Bashkir dialect, from which Bashkir seems to pattern with Tatar. Besides elicitation, various grammar descriptions were consulted, namely Пенгитов 1961; Галкин 1964; Alhoniemi 1993; Саваткова 2002 for Mari, Егоров 1957 for Chuvash, Юлдашев 1981 for Bashkir, Winkler 2001 for Standard Udmurt, Люкина 2008 for Beserman Udmurt, and Татарская грамматика 1993 for Tatar.

Our Hill Mari data come from two sources. The first is the authors' own fieldwork in the villages of Mikrjakovo and Sosnovoje in the west of the Gornomarijskij Region, Republic of Mari El, Russia, which includes both a database of elicited examples and occurrences of =*ok* in the collected texts (Mikrjakovo corpus). The second is a corpus of texts coming from another variety of Hill Mari, spoken in the village of Kuznetsovo (Gornomarijskij Region, Republic of Mari El, Russia) and in nearby settlements (http://hill-mari-exp.tilda.ws/corpus). Although it should be kept in mind that there might be dialectal differences between those two sources, we are unaware

[1] The data were collected in Maloje Karačkino but represent a Lower Chuvash dialect close to Standard Chuvash and not the dialect of Maloje Karačkino.

[2] Our data on Udmurt are mostly based on the Beserman variety. However, a preliminary survey based on two native speakers suggests that in the respects relevant for the current research, the situation in Standard Udmurt is quite similar.

of any such differences that are actually relevant for the purposes of the current paper. Our main argument is based on the elicited and textual data from the Mikrjakovo variety.

Before we proceed to describe the functions of *=ok*, we will make a few methodological notes. As expected of a focus particle, in all its functions *=ok* conveys a fairly abstract meaning, which is closely related to the pragmatics of the utterance and its position in the rhetorical structure of discourse. Therefore, it poses a challenge when studied in the field by the usual means of elicitation. Our main method was to construct minimal pairs of sentences that only differed by *=ok* and to present them to our consultants, asking them to explain the semantic or pragmatic difference between the two. The metalanguage of elicitation was Russian, in which all of the consultants were fluent.

Sometimes our consultants tried to describe prototypical circumstances in which an utterance with *=ok* would be felicitous. In most cases, however, they just translated *=ok* with different Russian lexical items: in one group of cases it was 'именно', in another group 'же, тоже, опять' were interchangeably used. Russian *именно* is best translated into English by means of an *it*-cleft, *тоже* is an additive particle parallel to English *also*, *опять* is fairly equivalent to *again*, and *же* has no good translational equivalent; we assume that its semantic contribution to a Russian sentence is roughly equal to what we describe as the counteradditive reading of *=ok* in Section 3.1 (see also Paducheva 1987; Падучева 2018). As the meanings conveyed by those Russian words are quite abstract themselves, often the speakers failed to provide any additional comments on the specific meaning they intended to convey when choosing these Russian equivalents.

A logical step to further capture the actual semantic impact of *=ok* was to study its distribution, combining it with other operators and running various diagnostics in order to test a number of possible hypotheses about its meaning. However, the starting point of our discussion will be to assume that *=ok* has two main readings that first emerged during the elicitation process: one more or less corresponding to Russian *именно* and the other corresponding to Russian *же*, *тоже*, and *опять*. Later, we will see if these two sets of contexts where *=ok* is used form a natural class.

The two aforementioned readings are lexically unconditioned, i. e., they are available for *=ok* attached to an open class of expressions (with some exceptions). However, there are yet other readings, surfacing in a narrower set of contexts. Descriptively, they only arise in combination with a certain class of words or morphemes restricted semantically or lexically: for example, a peculiar reading of *=ok* arises when the particle is attached to universal and existential quantifiers.

The structure of this paper is as follows. Section 2 provides some background information on Hill Mari syntax and the particle *=ok*. Section 3 introduces two major readings that *=ok* can have: counteradditive and exhaustive. Section 4 is dedicated to the interpretations of *=ok* that arise with lexically or semantically restricted classes of hosts, such as quantifiers or spatial expressions. In Section 5 we look at *=ok* from an areal perspective and compare possible uses of *=ok* with the behavior of its counterparts in the Volga-Kama languages. In addition, we consider a typological parallel of *=ok* from the East Caucasian family. Section 6 is a short conclusion.

2. =*ok*: background information

Hill Mari is spoken by approximately 20,000 speakers in the west of the Republic of Mari El. It is arguably one of the Finno-Ugric languages that have undergone the heaviest contact influence from Turkic (Johanson 2000; Helimski 2003; Agyagási 2012); during its history, it has been in extensive contact with Chuvash and Tatar. It has many borrowings from Chuvash, including not only lexical, but also functional items, e.g. case markers (Федотов 1990).

Hill Mari has the SOV word order (though due to ubiquitous Hill Mari-Russian bilingualism, SVO clauses also occur in natural discourse) and is consistently left-branching. The prototypical position of focalized constituents is immediately preverbal (2b):

(2) a. *kə̑-škə̑ mä tol-ə̑n-na*? (elicited)
which-ILL we come-PRF-1PL
'Where have we come?'

b. *mä* [*mikräk-äškə̑*]$_{FOC}$ *tol-ə̑n-na* (elicited)
we M.-ILL come-PRF-1PL
'We have come to Mikrjakovo.'

However, some different positions for foci are also available. There occur, for example, left-dislocated foci (which do not seem to have any particular rhetorical flavour):

(2) c. [*mikräk-äškə̑*]$_{FOC}$ *mä tol-ə̑n-na* (elicited)
M.-ILL we come-PRF-1PL
'Idem.'

The particle =*ok* is quite frequent, its frequency estimate being 6142 ipm (instances per million) in the Mikrjakovo dialectal field corpus (comparable to English *he*, *for*, *you*, and *that* according to Leech, Rayson, Wilson 2001) and 10555 ipm in the Kuznetsovo dialectal field corpus (http://hillmari-exp.tilda.ws/corpus) (comparable to English *it*, *is*, and *to*).

Like other Hill Mari focus particles, =*ok* is a clitic which almost always attaches to the word that bears the pitch accent (in most cases, it is the focus of the clause). Usually, it is the sole focus constituent of the clause.

(3) a. *mä* [*mikräk-äšk*]$_{FOC}$=***ok*** *tol-ə̑n-na* (elicited)
we M.-ILL=**EMPH** come-PRF-1PL
'It's to Mikryakovo that we came.'

b. **mä* [*mikräk-äškə̑*]$_{FOC}$ *tol-ə̑n-na*=***ok*** (elicited)
we M.-ILL come-PRF-1PL=**EMPH**
Intended: 'Idem.'

The particle cannot appear on adnominal dependents, e.g. adjectives, demonstratives, etc; instead, the particle appears on the NP head (4a, b). The only exception is genitival possessors (4c):

(4) a. *******tə̈*=***ok*** *edem-vlä tol-ə̑n-ə̑t* (elicited)
that=**EMPH** person-PL come-PRF-3PL
Intended: 'THOSE[3] people came.'

[3] SMALL CAPS in the translation line indicate the intended position of focus (more specifically, the word that bears the main sentential stress).

b. *tə edem-vlä=**ok** tol-ə̑n-ə̑t* (elicited)
that person-PL=**EMPH** come-PRF-3PL
'It were THOSE people who came.'

c. *vaśa-n=**ok** ät'ä-ävä-vlä tol-ə̑n-ə̑t* (elicited)
V.-gen=**EMPH** father-mother-PL come-PRF-PL
'It were Vasya's parents who came.'

These properties are common for all focus particles in Hill Mari (e. g. additive *=at*, restrictive *=vele*, etc.; Плешак 2017).

3. Interpretations of *=ok*

In this section, we discuss two different interpretations of *=ok*: counteradditive (Section 3.1) and emphatic (Section 3.2). Then in Section 3.3 we show that these two are, indeed, distinct interpretations.

To describe the contribution of the particle to the semantics of the utterance, we use Roothean Alternative semantics for focus (Rooth 1992). In a nutshell, it implies that focus invokes a set of alternative propositions: for example, the utterance (5a) would have alternatives of the kind (5b).

(5) a. *Al wears RED boots*
b. {Al wears green boots; Al wears black boots; …}

The set of focus alternatives explains the dependency between the main pitch accent of the utterance (*red* in 5a) and the context in which the utterance may be felicitously produced. For every utterance, the context should provide an antecedent that is either a member of its focus alternative set (for example, (5a) can be a correction of the statement *Al wears black boots*) or a question such that its potential answers are the focus alternatives (for (5a), such question would be *What kind of boots does John wear*?)

The latter option connects the theory of focus with the theory of discource structure. Even in cases in which there are no explicit questions, coherent discourse can be viewed as structured with a hierarchy of Questions Under Discussion (QUDs; Roberts 2012) that have to be resolved. For example, in a discourse like *Even if I don't see his face, I can recognize Al by his boots. Al wears RED boots* the question *What kind of boots does Al wear*?, despite not been explicitly posed, is a natural question to ask after the first utterance. Thus, focus can be viewed as marking the question under discussion.

In such a framework, focus particles can be viewed as contributing some additional information about the set of alternatives. When it is necessary to say something about the connection between the focus particle and the focus of the clause, the latter is called the semantic associate of the particle. In our examples, the associate will in most cases be the phonological host of the particle.[4]

3.1. Counteradditive interpretation

Typologically, one of the broadest and most well-studied types of focus particles is additive (König 1991; Gast, van der Auwera 2011). We

[4] An important exception to this generalization is cases where the focus of the clause, and the associate of the particle, is an adnominal dependent, i. e., an adjective or a demonstrative pronoun.

will dub the most frequent interpretation of *=ok* c o u n t e r a d d i t i v e. This term is meant to reflect the fact that a counteradditive focus particle is licensed, in general, by the same discourse context as an additive particle, but is placed on a different constituent than an additive particle is, or would have been, placed. Here we imply the literal, spatial meaning of the Latin preposition *contra* 'face-to-face; opposite'.[5] To give the reader a first impression of what uses we are going now to describe, we will consider example (6):

(6) *nə̑r-ə̑štə̑* [*maša*]$_{\text{FOC}}$ *päšäl-ä,* *t'et'ä-vlä-m* [*maša*]$_{\text{FOC}}$=***ok***
field-in M. work-NPST.3[SG] child-PL-ACC M.=**EMPH**
anž-a (elicited)
look-NPST.3[SG]
'MASHA works in the field, and MASHA looks after the children, too.'

Such sentences can be translated into English by means of an utterance with an additive focus particle (such as *also, too, as well,* etc.). However, there is one important difference: the associate of the particle (which is also its syntactic sister) is the repeated constituent, not the newly introduced one. Compare the English example in (7), where the associate of *also* is, by a common assumption, the focus constituent of the clause, i. e., the newly introduced verbal phrase.

(7) {*Masha works in the field,*} *Masha also* [*looks after the children*]$_{\text{FOC}}$.

At least at the first glance, *=ok* restricts the possible context of the use of an utterance in a fashion close to that of the additive particles. Additive focus particles are said to convey an additive presupposition:

(8) *John also painted* [*the wall*]$_{\text{FOC}}$
→ 'There is some X, other than the wall, such that John painted X.'

However, if we were to translate (8) into Hill Mari, *=ok* would attach to *John* rather than to *the wall* — it is for that reason that we dub this use of *=ok* counteradditive:

(9) *stenä-m* *džon=**ok*** *čiält-en* (elicited)
wall-ACC J.=**EMPH** paint-PRF[3SG]
'It was John who also painted the wall' {and he also painted something else}

Hill Mari also possesses a genuine additive focus particle *=at*, which behaves in a more predictable fashion, attaching to the newly introduced material. Thus, *=at* and *=ok* often co-exist in the same sentence, albeit being attached to different constituents. Compare (10), which is a version of (6):

(10) *nə̑r-ə̑štə̑* [*maša*]$_{FOC}$ *päšäl-ä,* *t'et'ä-vlä-m=ät* [*maša*]$_{\text{FOC}}$=***ok***
field-in M. work-NPST.3[SG] child-PL-ACC=ADD M.=**EMPH**
anž-a (elicited)
look-NPST.3[SG]
'MASHA works in the field, and MASHA looks after the children, too.'

For such sentence as (9), there thus exists a paradigm of three variants. Their propositional meaning is roughly the same: all of them share a common at-issue component 'John painted the wall' and a presupposition 'There is something else that John painted'.

[5] This term has nothing to do with the term *anti-additive*, which expresses a property of logical operators (Hoeksema 1983).

(11) a. *sťenä-m džon=**ok** čiält-en.* (elicited)
wall-ACC J.=**EMPH** paint-PRF[3SG]
'It was John who also painted the wall, too.'

b. *sťenä-m=ät džon čiält-en* (elicited)
wall-ACC=ADD J. paint-PRF[3SG]
'John painted the wall, too.'

c. *sťenä-m=ät džon=**ok** čiält-en* (elicited)
wall-ACC=ADD J.=**EMPH** paint-PRF[3SG]
'It was John who also painted the wall, too.'

However, the utterances (11a—c) differ as to in which discourse context they are to be used. The most immediate question under discussion in (11a) is "Who painted the wall?", and in (11b) "What did John paint?" or "What did John do?" (in the latter case, we have a marked word order with a left-dislocated focus). As for (11c), it can be felicitous under both QUDs.

As well as in the case of additive particles, this presupposition is anaphoric. (11a—c) would seem weird if pronounced out of the blue; they require a preceding utterance such as *John painted the floor*. More generally, we can say that to host a counteradditive *=ok* an utterance should have some parallel antecedent utterance, provided (or at least entailed) by discourse context.

Let us take two parallel utterances, each having a pair of contrasting entities:

(12) U1: [α] … [β]
U2: [γ] … [δ]

The values [α], [β], [γ] and [δ] can be all distinct, as in (13):

(13) U1. [*sedərä-m*]$_{FOC}$ [*məńʲ*]$_{FOC}$ *čiält-en-äm* (elicited)
floor-ACC I paint-PRF-1SG
U2. [*stenä-m*]$_{FOC}$ [*džon*]$_{FOC}$ *čiält-en* (elicited)
wall-ACC J. paint-PRF[3SG]
'I painted the floor, and John painted the wall.'

However, the value of both [γ] and [δ] can coincide with [α] or [β]. In this case, the coinciding constituent carries counteradditive *=ok*. In other words, counteradditive *=ok* requires an antecedent utterance that should contain (a) a constituent which is identical to the *=ok*-marked constituent (*John* in (11a—c)) but also (b) some material that is different from what there is in the prejacent of *=ok* (e.g. *the floor*).

We will make this generalization more explicit arguing that an utterance with *=ok* should be able to partially resolve a QUD (question under discussion; see Roberts 2012) that is expressible as a multiple wh-question. So, such an utterance has to have either two (or perhaps more) foci or a contrastive topic and a focus (we will assume Büring's (2003; 2014) account of contrastive topic marking):

(14) a. [*stenä-m*]$_{FOC}$ [*džon*]$_{FOC}$=**ok** *čiält-en* (elicited)
wall-ACC J.=**EMPH** paint-PRF[3SG]
'It was John who also painted the wall, too.'

b. [*stenä-m*]$_{CT}$ [*džon*]$_{FOC}$=**ok** *čiält-en* (elicited)
wall-ACC J.=**EMPH** paint-PRF[3SG]
'It was John who also painted the wall, too.'

A QUD that (14a, b) is to resolve can be expressed by the sentence *Who painted what*? Analogously to focus semantic value (Rooth 1985; 1992) or contrastive topic semantic value (Büring 2014), let us define a Y-value of an utterance:

(15) Y-value of an utterance with an *=ok* is a set of propositions obtained by replacing each focused or (contrastively)-topicalized constituent (except the one to which *=ok* is attached) by alternative expressions of the same semantic type.

Now we are going to formulate a syncategorematic interpretation rule for *=ok* as follows:

(16) ⟦S *=ok* ⟧ =
a. $⟦S⟧^{O}$ assertion
b. $\exists P.\ P \in ⟦S⟧^{Y} \& P \neq ⟦S⟧ \& P(w^{o}) = 1$ anaphoric presupposition

In words, an utterance that contains *=ok* asserts its prejacent and presupposes that there exists a true identifiable proposition that is a member of the prejacent's Y-value.

For example, (14a), besides the constituent dwelled at by *=ok*, possesses one more F-marked constituent, namely *stenä-m* [wall-ACC]. Its Y-value is a set of propositions {*John painted x* | $x \in D_e$}. It presupposes that there is a true identifiable alternative that is also a member of this set. This presupposition is fulfilled, for example, if the context entails that John painted the roof.

Another example illustrating counteradditive *=ok* comes from a spontaneous narrative:

(17) *nu eče kud-eš=**ok** końešnə kogo vacak-eš šolt-a-t*
well besides hut-LAT=**EMPH** of_course big hearth-LAT boil-NPST.3-PL
ə̑l-ə̑n samogon-ə̑m=at (http://hillmari-exp.tilda.ws/corpus)
be-PRF[3SG] moonshine-ACC=ADD
'Now, in the hut in the large hearth we used to distill (lit. 'boil') spirits, too.'

The topic of the text, as stated in its beginning, is *surt,* which means house and household buildings. For each kind of buildings, the speaker describes various traditional practices of Hill Mari people that took place there. The previous passage was dedicated to brewing beer. Alongside with many other summer activities, beer brewing took place in a household building called *kudə̑* (here we translate it as 'hut'). (17) starts a new passage, dedicated to distilling spirits. It also took place in *kudə̑*.

We can assume that the QUD that this utterance aims at resolving can be something like *What activities were done in what kinds of buildings*? Then we can suggest the following pattern of F-marking:

(18) *nu eče* $[kud\text{-}eš]_{FOC}$***=ok*** *końešnə kogo vačak-eš* [*šolt-a-t*
well besides hut-LAT=**EMPH** of_course big hearth-LAT boil-NPST.3-PL
$ə̑l\text{-}ə̑n\ samogon\text{-}ə̑m]_{FOC}$*=at* (http://hillmari-exp.tilda.ws/corpus)
be-PRF[3SG] moonshine-ACC
'Now, IN THE HUT in the large hearth people used to distill (lit. 'boil') spirits, too.'

The Y-value of (18) would be the set {people used to P in the hut | P is a household activity}. The semantic contribution of *=ok* would be intro-

ducing a presupposition that there is some other household activity that the speaker used to perform in the large hearth in the hut. This presupposition holds, since immediately before this sentence the speaker spoke about how beer was brewed in this very place (the large hearth in the hut).

There are also cases in which the host of *=ok* is the only accent-carrying constituent of the clause:

(19) *täń-äm=**ok** ajər-en-äm*
you-ACC=**EMPH** choose-PRF-1SG
a. {He chose you} 'I chose you, too.'
b. {Last time, I chose you.} 'This time, I chose you, too.'

(19) doesn't have any pitch-marked constituents (e. g. foci or contrastive topics) other than the DO, which hosts *=ok*. Then its Y-value is calculated with respect to some covert non-contrastive topic. Hill Mari is a pro-drop language, and (19) contains a null subject pronoun. This yields the interpretation (19a), in which the Y-value is {He chose you; Al chose you; Ben chose you; etc.}; accordingly, the antecedent utterance *He chose you* makes (19a) felicitous. The Y-value can be calculated with respect to some other covert topic, i. e. a null situation indexical ('this time' / 'in this situation'). This would lead to the interpretation (19b), in which the antecedent utterance can be something of the kind *Last time, I chose you*.

The counteradditive reading of *=ok* often surfaces with demonstratives. Being attached to a demonstrative pronoun, it yields an interpretation roughly translatable as 'the same':

(20) a. *tidä-m äštä* (elicited)
this-ACC do[IMP.2SG]
'Do this!'

b. *tidä-m=**ok** äštä* (elicited)
this-ACC=**EMPH** do[IMP.2SG]
'Do the same!'

If a noun phrase contains an adnominal demonstrative pronoun *ti* 'this' or *tä* 'that', the particle attaches to the head noun, rather than to the pronoun itself.

(21) a. *täń ti bank-ən pu-en-ät* (elicited)
you this jar-ACC give-PRF-2SG
'You returned this jar.'

b. *täń ti bank-ən=**ok** pu-en-ät* (elicited)
you this jar-ACC=**EMPH** give-PRF-2SG
'You returned the same jar.'

(22) *ärväž ti poka-eš=**ok** ki-en kod-eš* (Mikrjakovo corpus)
fox this side-LAT=**EMPH** lie-CVB remain-NPST.3SG
'The fox remained on the same side {of the river}.'

The difference between regular 'this'-readings and particle-based 'the same'-readings of the demonstrative can be explained by the above interpretation rule for counteradditive *=ok*. While 'this'-demonstratives just pick up a salient antecedent individual, 'the same'-demonstratives require that it be contained in an antecedent utterance that partially resolves the same QUD as the current one.

(23) *mäń ke-ä-m kud-ə̑škə̑. tə̑-šk=**ok** seŕoža ke-n* (elicited)
I go-NPST-1SG hut-ILL that-ILL=**EMPH** S. go-PRF[3SG]
'I am going to the summer kitchen. Serjoža went to the same place.'

(24) *kud-ə̑štə̑ iktät uke, # tə̑-šk=**ok** / ok tə̑-škə̑ seŕoža ke-n* (elicited)
hut-in one.ADD neg.EX that-ILL=**EMPH** that-ILL S. go-PRF[3SG]
'There is nobody in the summer kitchen. Serjoža went there.'

In (23), the overarching QUD may be something like 'Who is going to be where in the near future?'. Sub-QUDs aiming at partial resolving of the overarching QUD are 'Where are you now going to be?', 'Where is Serjoža now going to be?', etc. Conversely, in (24), unlike in (23), there hardly can be a QUD for which both the prejacent utterance 'Seryozha went to the summer kitchen' and the antecedent utterance 'There is nobody in the summer kitchen' are relevant.

As =*ok* requires a repeated constituent, it can be often translated with 'again':

(25) *peťerburg-ə̑št=**ok** tene mä vi̯stupaj-en-nä* (elicited)
P.-in=**EMPH** this.year we perform-PRF-1PL
'This year, too, we performed IN ST. PETERSBURG.' / 'This year we again performed in St. Petersburg.'

(26) *mä mikräk-äšk=**ok** tol-ə̑n-na* (elicited)
we M.-ILL=**EMPH** go-PRF-1PL
{In the morning, we woke up in Mikrjakovo, visited Jelasy, Kuznetsovo and then…} 'We again went TO MIKRJAKOVO.'

The antecedents of the constituents to which =*ok* is attached may be found in the same sentence. (27) is a short comment about a situation where a collective farm director appointed to a certain position a person who, according to the speaker, was not a suitable candidate. The speaker explains it:

(27) *suaslamarə̑ suaslamar-ə̑m=**ok** ajə̑r-en* (elicited)
Chuvash Chuvash-ACC=**EMPH** choose-PRF[3SG]
'A Chuvash chose a Chuvash like himself.'

In (28), the repeated occurrence of *käp* 'flesh' again bears =*ok*:

(28) *käp gə̈c šač-šə̑ käp=**ok** li-eš* (John 3:6. finugorbib.com)
flesh from be.born-PTCP.act flesh=**EMPH** become-NPST.3SG
'That which is born of the flesh is flesh.'

A special case of intrasentential antecedence for =*ok* is tautological utterances, where the antecedent is the subject and the host of =*ok* is a nominal predicate:

(29) *mükš mükš=**ok** ə̑l-eš* (Кашкин, Сидорова, Мордашова, Гарейшина, Учитель 2018)
bee bee=**EMPH** be-NPST.3SG
'A bee is a bee.'

Finally, a counteradditive reading with intrasentential antecedence is what licenses =*ok* on SELF-intensifiers:

(30) *sv́eta äške=**ok** v́elośipet-šə̈-m törl-en*[6]
Sveta REFL=**EMPH** bicycle-POSS.3SG-ACC fix-PRF[3SG]
'Sveta has fixed the bicycle herself.'

[6] Example courtesy of Jekaterina Morgunova.

3.2. Exhaustive interpretation

Another salient interpretation of =*ok* is the exhaustive, or the emphatic identity interpretation. The label "emphatic identity" was introduced by König (1991) to describe the semantic impact of such particles as German *eben* or *gerade*:

(31) *denn in Wirklichkeit ist g e r a d e ihr Ende*
as in reality is part their end
schlimm (B. Brecht, Die Dreigroschenoper)
bad
'It is their end that is going to be bad.'

Russian *именно* is used in similar contexts:

(32) *Он выбрал и м е н н о меня.*
he chose part me
'It was me that he chose.'

In general, when discussing the semantics of emphatic identity particles, König (1991) follows the previously proposed analyses of English *it*-clefts, to which he believes the emphatic identity particles to be semantic equivalents. An English *it*-cleft is exemplified in (33):

(33) *It was me who he chose.*

The semantics and pragmatics of English *it*-clefts have been vastly discussed (Atlas, Levinson 1981; Horn 1981; Velleman, Beaver, Destruel, Bumford, Onea, Coppock 2012). As it is known since Atlas, Levinson 1981, English *it*-clefts introduce an e x h a u s t i v i t y not-at-issue component (we will follow Atlas and Levinson in taking it to be a presupposition). *It*-clefts presuppose that no relevant focus alternative except for the prejacent is true. König takes his "emphatic identity" particles to make more or less the same semantic contribution that *it*-clefts do, the main difference being that *it*-clefts form a specialized construction and emphatic identity particles form the same syntactic category as the much-studied *only* and *even*. Erlewine and New (2021) give a fine-grained semantic analysis of a particle in Burmese that has a "cleft-like" interpretation. Among other linguistic phenomena that have been claimed to contain an exhaustivity presupposition, Hungarian preverbal foci (Szabolcsi 1981; É. Kiss 1998) should be listed.

The exhaustive reading of =*ok* can be illustrated by the following Hill Mari examples:

(34) *markelof=**ok** licə-mə vär-əm pač-ə* (elicited)
M.=**EMPH** heal-NMZ place-ACC open-AOR[3SG]
'It was Markelov who opened the hospital. {and not his deputy}'

(35) *stöl vəl-nə ätəder=**ok** šənz-ä* (elicited)
table on-in cup=**EMPH** sit-NPST.3[SG]
'It is a cup that is there on the table.' {and not a plate or a pan}

We can impressionistically state that German (31), Russian (32) and English (33) examples involve emphasis. Our Hill Mari consultants, too, often reported that in cases such as (34) and (35) =*ok* is used to emphasize the meaning of the word it is attached to. However, we believe that the notion of emphasis *per se* is too vague to be lexically encoded. For *it*-clefts at least, this notion

has been successfully reduced to a simpler one, namely that of exhaustivity. For the Hill Mari *=ok* we suggest that the "emphatic" interpretation boils down to two semantic ingredients, exhaustivity and givenness.

3.2.1. Exhaustivity

Velleman, Beaver, Destruel, Bumford, Onea and Coppock (2012) formulate the exhaustivity presupposition introduced by English *it*-clefts as follows:

(36) "No true answer to the QUD is strictly stronger than *p*", where *p* is the prejacent of the cleft.

Note that the QUD determines the focus alternatives: the relevant focus alternatives are a subset of the possible answers to the QUD. Thus, (36) states that among relevant focus alternatives only the prejacent (or, possibly, also other answers entailed by the prejacent) is true.

This presupposition holds for *=ok*: (37) cannot be continued by an utterance stating that there is something else on the table without making a contradiction:

(37) *stöl väl-nä ätäder=**ok** šänz-ä. {#avarc=at šänz-ä}* (elicited)
table on-in cup=*EMPH* sit-NPST.3[SG] pancake=ADD sit-NPST.3[SG]
Intended: 'It is a cup that is there on the table. And there is also a pancake.'

As is predictable for an exhaustifying device, on no condition does *=ok* combine with the additive particle *=at*:[7]

(38) ***vaśa-m=at=ok** / **vaśa-m=ok=at* (elicited)
V.-ACC=ADD=**EMPH** / V.-ACC=**EMPH**=ADD
Intended: 'it is also Vasja whom…'

Conversely, it freely combines with the restrictive particle *vele* 'only', which is compatible with the semantics in (39):

(39) *äštä-ne-m ɔ̂l'ɔ̂ kagɔ̂l'-ɔ̂m avarc=**ok***
do-DESID-1SG be.AOR[3SG] pie-ACC pancake=**EMPH**
vele polučaj-alt-ɔ̂n
only come_out-DETR-PRF[3SG]
'I wanted to make a pie, but I only managed to make pancakes.'

3.2.2. Givenness

Apart from the exhaustivity inference, the reading of *=ok* that we dub exhaustive in fact includes one more semantic ingredient, namely givenness of associate. An interesting and underinvestigated topic in the typology of focus-associated items is which devices have an additional givenness component and which do not.

Consider, for example, the Russian *именно*. For the utterance with *именно* to be successful, the referent should be already introduced in discourse (Козлов 2020). (40a), an answer to an out-of-the blue question, is infelicitous, while a

[7] The only exception is *-ok* modifying the negative universal quantifiers that have the additive particle as a part of their morphological makeup. It does not contradict the generalization above because (a) it is another reading of *-ok* that surfaces in this context and (b) arguably, the particle in this context does not receive its regular additive interpretation.

pre-mentioning of Vasja makes *именно* felicitous. Russian speakers differ in preferring the options (40b) and (40c).

(40) a. — {Who came to your place yesterday?}
— # *Ко мне приходил именно Вася.* /
to me came imenno Vasja
Intended: 'It was Vasja who came to my place.'

b. — {Vasya doesn't want to tell me... Who came to your place yesterday?}
— ok *Ко мне приходил именно Вася.*
to me came imenno Vasja
'It was Vasja who came to my place.'

c. — Vasya doesn't want to tell me... Who came to your place yesterday?
— ok *Именно Вася ко мне и приходил*
Imenno Vasja to me *i* came.

This parameter is not just some trivial consequence of the exhaustivity inference. For example, English *it*-clefts, the most investigated exhaustifying focus construction, despite being semantically quite close to Russian *именно*, do not have such a presupposition. Consider (41):

(41) {Nobody was able to prove this theorem for years.} It was some bachelor student who eventually proved this theorem.

In this respect, Hill Mari *=ok* patterns with Russian *именно* and not with English *it*-clefts. As (42) shows, *=ok* requires that its host be given:

(42) a. — {Who came to your place yesterday?}
— # *mälännä vaśa=**ok** tol-ə̑n*
we.DAT V.=**EMPH** come-PRF[3SG]
Intended: 'It is Vasja who came to our place.'

b. — {Tell me one thing, because Vasja doesn't want to tell me.}
— ok *mälännä vaśa=**ok** tol-ə̑n*
we.DAT V.=**EMPH** come-PRF[3SG]
'It was Vasya who came to our place.'

(42a) is unacceptable, since Vasja was not mentioned in the previous context. However, (42b) is acceptable, since a mentioning of Vasja is explicitly contained in the previous utterance.

Examples (43 a, b), parallel to English (41), are another illustration of the fact that givenness of the associate is a necessary condition on the exhaustive use of *=ok*. (43a) is infelicitous, as the context does not contain any mentioning of students. (43b), however, is felicitous, as the utterance containing *=ok* appears in the discussion of the abilities of contemporary students. Note that the referent of the NP that hosts *=ok* ('some student') is not discourse-given but the denotation of the noun is: students have to be mentioned in the preceding context.

(43) a. {Nobody was able to prove this theorem for years}
*# stud'ent=**ok** tidə̈-m dokazaj-en*
student=**EMPH** this-ACC prove-PRF[3SG]
'Intended: 'It was some student that proved that.'

b. {Nowadays students can be stunning. For example, you know that nobody was able to prove this theorem for years}

*stud'ent=**ok** tidə-m dokazaj-en*
student=EMPH this-ACC prove-PRF[3SG]
'It was some student that proved that.'

Simonenko and Carlier (2020) propose the following definition of givenness (based on earlier definitions in Schwarzschild 1999 and Kučerová 2012):

(44) A constituent *C* of an utterance *u* in a context *c* (in Stalnaker's sense) interpreted with respect to a situation *s* is considered g i v e n if *c* entails the non-emptiness of the extension of *C* in *s*. (Simonenko, Carlier 2020 : 205).

What is important in Simonenko and Carlier's definition is that givenness, under their view, should be defined not only with respect to contexts, but also with respect to situations (understood in the vein of Kratzer 2007). For example, it is very likely that the speaker of (43a) believes that the extension of the Hill Mari word *stud'ent* is non-empty, i. e. that students, generally, do exist. However, to be g i v e n according to (43) means more: the context entails that the situation under discussion contains a non-empty set of students. This is why (43a) is bad in an out-of-the-blue context but felicitous, if the context contains a discussion of students. For example, it can be uttered in a discussion of how brilliant modern students are.

Not only denotations of constituents, but the entire proposition can be construed as given, as is the case in a special subclass of exhaustive readings known as v e r u m f o c u s readings. Verum focus can be defined as a type of focus which presupposes only two alternatives: the prejacent and its negation (although some data call for a more complicated definition, cf. Höhle 1992).

Hill Mari *=ok* has a verum focus interpretation:

(45) *vaśa tol-ə̑n=**ok***
V. come-PRF[3SG]=EMPH
'Eventually / after all, Vasja DID come.'

Focus alternatives for (45) are as follows: {Vasja came, Vasja did not come}. As in previous cases, *=ok* states that the prejacent alternative is true, and others are not. In (45), focus alternatives are mutually contradicting, so the exhaustivity presupposition of *=ok* is vacuous. We claim that in (45), the focus associate of *=ok* is the whole proposition; consequently, the whole proposition should be discourse-given. It brings about the 'after all' component of meaning: (45) is felicitous if Vasja's coming was already discussed, and now it is asserted that it eventually took place.

3.3. Two readings or just one?

We have examined two major interpretations of *=ok*: counteradditive and exhaustive. However, it might not be immediately clear that the distinctness of the two readings is linguistically real rather than, for example, being merely an epiphenomenon of the study's methodology. Originally, the hypothesis of *=ok* having two main readings came to the authors' mind during fieldwork, as the speakers offered different Russian words to convey the semantic contribution of *=ok* (Russian particles *же* and *опять* for counteradditive, *именно* for exhaustive). Could it be possible that what appears to be two readings are actually manifestations of one single reading, simply translated into Russian by different means in different cases? Remember that one of the

necessary conditions on the usage of counteradditive *=ok* is that its host is repeated in a salient antecedent utterance that answers the same QUD as the given utterance. This sounds somewhat similar to the givenness requirement of the exhaustive *=ok*.

At first glance, there are contexts where it seems to be a natural descriptive choice to assume that both readings are available:

(46) *klovoj-ə̂m=**ok** ajə̂r-en-äm*
blue-ACC=**EMPH** choose-PRF-1SG
1. {I was offered a blue cup or a red cup. I thought for a while, because I liked both. Finally,} 'it was the blue one that I chose.' (Exhaustive reading)
2. {Mary chose the blue cup. — What about you? — } 'I also chose the blue cup.' (Counteradditive reading)

However, since the two interpretations of the particle are quite close to each other, there may arise a doubt that we are really dealing with two distinct interpretations rather than two different imprecise translations of a single interpretation. In what follows, we are going to provide additional evidence that the two readings are indeed distinct. The point is that they have different syntactic distribution.

There are certain syntactic contexts, where only the exhaustive reading is available. For example, only exhaustive reading is possible when the particle attaches to a finite verb (47). Counteradditive reading, while logically possible, is illicit (48a). A grammatical means to express the same idea is (48b), where *=ok* attaches to *tenge* 'so, in this fashion', a demonstrative pronoun denoting manner, to yield the sense 'in the same fashion, similarly'.

(47) ^{OK}*tädə dńevńik-əm lə̂mə̂n kodə̂-de,*
he grade.book-ACC intentionally leave-neg.PRF[3SG]
*mond-en=**ok***
forget-PRF[3SG]=**EMPH**
'He did not leave his gradebook intentionally, he had forgotten it.'

(48) a. ***tädə tagačə̂ mond-en irgod-ə̂m=at mond-a=**ok***
that today forget-PRF[3SG] tomorrow-ACC=ADD forget-NPST.3[SG]=**EMPH**
Intended: 'He has forgotten that today, he will forget it tomorrow, too/again!'

b. *tädə tagačə̂ mond-en irgod-ə̂m=at tenge=**ok***
that today forget-PRF[3SG] tomorrow-ACC=ADD so=**EMPH**
mond-a
forget-NPST.3[SG]
'Idem.'

These facts fit into a general tendency for focus particles to disprefer verbs as hosts (Forker 2015; Branan, Erlewine 2022). However, what interests us is the asymmetry between the two readings. If counteradditive and exhaustive interpretations were in fact the same interpretation, simply translated by native speakers into the meta-language in different ways, we would not expect this difference in distribution. This is the reason why on the descriptive level, we choose to speak of two distinct major interpretations. Note that we do not make any deeper commitments: for now, we remain agnostic about whether we have to postulate two different lexical entries for those two interpretations. The two distinct interpretations might arise via interaction of

the single meaning of the particle with some other elements of syntactic structure.

3.4. Summary

In this section, we have presented two readings of =*ok* that we dub counteradditive and exhaustive. The counteradditive interpretation can be translated with English *also* or *too,* but has a different distribution, surfacing on the repeated rather than on the new constituent. The exhaustive interpretation boils down to the inferences of exhaustivity and discource-givenness of the focus associate. While the first interpretation is not available when the particle attaches to finite verbs, the second one is, which shows that the two interpretations are indeed distinct.

4. Lexically-conditioned uses

Finally, there are some uses of =*ok* that do not fall into the categories outlined above. For both counteradditive and exhaustive versions of =*ok*, there are distributional restrictions, but they still can attach to an open class of associates. For the readings we list below, it is not the case: those readings are only available with a restricted set of associates, defined lexically or semantically. In what follows, we discuss lexically-conditioned uses of =*ok* with quantifiers (Section 4.1), spatial expressions (Section 4.2), similative constructions (Section 4.3), caritives (Section 4.4), and contrastive topics (Section 4.5).

4.1. =*ok* with quantifiers

One of such lexically-conditioned functions of =*ok* arises when the particle is attached to quantifier phrases, in particular universal and existential quantifiers. We would describe the function of =*ok* in such contexts as domain-widening.

Domain widening is a pragmatic effect that is well-attested for negative polarity and free choice *any* (Kadmon, Landman 1993; Krifka 1995) and similar elements in the worlds' languages. In natural languages, quantification over the whole universum of entities is extremely rare; more often the domain of quantification is pragmatically restricted in one way or another. We may utter a sentence like *Every person in the village knows Mary* even if there are 50 villagers, and exactly 48 of them know Mary, the other two being elderly women who never leave their homes and so have had no opportunity to meet Mary. What we mean uttering this sentence is in fact something like 'Every person in the village who ever meets any people at all knows Mary'. Note, however, that if it is known that there are two old ladies not yet acquainted with Mary in the village, the utterance *Every single person in the village knows Mary* feels less felicitous.

One of the most widespread views of *any* and its likes is that such items are existential quantifiers equipped with a sort of pragmatic rule: their domain of quantification is wider than the prototypical domain which can be provided by the context. It is illustrated by the minimal pairs of the following kind:

(49) a. *A fork will do.*
b. *Any fork will do.*

(49b), unlike (49a), stresses the fact that some conditions in question can be satisfied not only by a default kind of fork (e. g. a steel fork), but also by a non-default kind of fork (e. g. a plastic fork). The precise source of this inference is irrelevant to our present goals. We claim that while *any* is an existential quantifier that carries a hard-wired domain widening inference, *=ok* can attach to different quantifiers, adding this inference:

(50) *ma-m gəńʲ=ät əšt-äš kel-eš*
what-ACC INDEF=ADD do-INF be_needed-NPST.3SG
'You should do something.'

(51) {During a maths test, a pupil is desperate and thinks he cannot do anything. A teacher tries to encourage the pupil}
*ma-m gəńʲ-ät=**ok** əšt-äš kel-eš*
what-ACC INDEF=ADD=**EMPH** do-INF be_needed-NPST.3SG
'You should do anything at all.' / 'You should do at least something.'

According to what the teacher in (51) thinks, the pupil overestimates the complexity of the task. He believes that he could do nothing that would have counted as "something relevant", i. e., a meaningful contribution. The advice of the teacher widens the domain of existential quantification: now some easier things, e. g. solving the easiest bits or even copying the task onto the sheet count as "something relevant".

This function is also attested with universal quantifiers. A universal statement with a widened domain is more informative than one with a standard, non-widened domain. The speakers often try to express the semantic contribution of *=ok* in Russian, using reduplicated universal quantifiers: *все-все* [ALL.NOM.PL ALL.NOM.PL], *каждый-прекаждый* [every.M.NOM.SG.-SUPERL.every.M.NOM.SG]. In English, this interpretation is best rendered by expressions such as *every single X* or *every bloody X*.

(52) a. *cilä tʼetʼä južnamžə̑ opozdaj-a*
all child sometimes be.late-NPST.3[SG]
'All children are sometimes late.'

b. *cilä tʼetʼä=**ok** južnamžə̑ opozdaj-a*
all child=**EMPH** sometimes be.late-NPST.3[SG]
'Every single child is sometimes late.'

(53) a. *məńʲ amasa-m čüč-äš so mond-em*
I door-ACC close-INF always forget-NPST-1SG
'I always forget to close the door.'

b. *məńʲ amasa-m čüč-äš so=**ok** mond-em*
I door-ACC close-INF always=**EMPH** forget-NPST-1SG
'On every bloody occasion, I forget to close the door.'

According to the speakers, what distinguishes (52b) from (52a) and (53b) from (53a) is reduced tolerance for exceptions. We take the function of the particle in (52b) to be essentially the same as in (53b): the domain of quantification (i. e. the set of which the universal statement holds) is widened so that fewer exceptions remain outside the domain.

This reading of *=ok* also arises with negative universal quantifiers:

(54) *tädə cilä kačk-ə̑n, ni-mat=**ok** kodə̑-de*
that all eat-PRF[3SG] NEG-what.ADD=**EMPH** leave-NEG.PRF[3SG]

'He ate up everything, he didn't leave a single piece.'

(55) *mäń ́perosk-ə̑m ni-gə̑nam=at=**ok** ə̑šma-šk-em*
I cigarette-ACC NEG-when=ADD=**EMPH** mouth-ILL-POSS.1SG
näl-de-lam
take-NEG.PRF-1SG
'I have never smoked a cigarette.'

Finally, the same function is attested with *wh*-words. In Hill Mari, *wh*-questions with the particle *=ok* attached to the *wh*-words are infelicitous when uttered out of the blue. The speakers report that the particle signals some difficulty or perplexity on the part of the speaker with respect to how the question might be answered. So *=ok* is infelicitous in (56a) but is fine in (56b):

(56) a. {I'm going to town. You have told me that you need a copybook.}
*maxań(#=**ok**) t'etrat' tälät kel-eš*?
what.kind(#=**EMPH**) copybook you.DAT be_needed-NPST.3SG
'What copybook do you need?'

b. {Here are all kinds of copybooks, but you don't want any of them.}
*maxań=**ok** t'etrat' tälät kel-eš*?
what.kind=**EMPH** copybook you.DAT be_needed-NPST.3SG
'What copybook do you need, then?' {A golden one, perhaps?}

(57) a. — {The good news is that there are some people that can help me.}
— *kü(#=**ok**) tälät palš-en kerd-eš*?
who(#=**EMPH**) you.DAT help-CVB can-NPST.3SG
'Who will be able to help you?'

b. {Neither I nor any person I know are able to solve your problem.}
*kü=**ok** tälät palš-en kerd-eš*?
who=**EMPH** you.DAT help-CVB can-NPST.3SG
'Who on earth will be able to help you?'

What is going on in (56a, b) and (57a, b) is roughly the following: the speaker has a pragmatic presupposition that within the "standard" set of alternatives, no answer to the question is true, e. g., no standard kind of a copybook suits the addressee in (56a, b), no person from some relevant set of people can help the addressee in (57a, b). However, we may be able to find the answer if we consider a widened set of alternatives, i. e. weird kinds of copybooks, or unusual people.

4.2. *=ok* with spatial expressions

=ok attaches to DPs in locative cases and to spatial PPs, indicating greater precision in identifying the location.

Look at (58a). This sentence means that the house in question would be quite close to a person who would turn a certain corner. (58b), in its turn, means that the house in question is the first or the second of the houses behind the corner.

(58) a. *tədə-n pört-šə̈ [povorot paštek]*$_{PP}$
that-GEN house-POSS.3SG turn behind
'His house is behind the corner.'

b. *tədə-n pört-šə* [*povorot paštek*]$_{PP}$=***ok***
that-GEN house-POSS.3SG turn behind=**EMPH**
'His house is just behind the corner.'

A similar interpretation arises in (59). (59a) means that the picture should be placed in some area on the wall above the table. In (59b), the area is interpreted to be narrower: deviation to the left or to the right is tolerated to a lesser extent.

(59) a. *kart'in-ə̑m stöl küšän säk-äš li-eš*
picture-ACC table above hang-INF become-NPST-3SG
'You can hang up the picture above the table.'

b. *kart'in-ə̑m stöl küšän=**ok** säk-äš li-eš*
picture-ACC table above=**EMPH** hang-INF become-NPST-3SG
'You can hang up the picture straight above the table.'

Informally, this function of =*ok* can be described as zooming in. The meaning of *küšän* 'above' has two components, referring to the position of an object on the vertical axis (in the upper part of the wall divided by the plane of the table) and on the horizontal axis. In respect to the latter, we may accept a coarse-grained partition of the space of the wall, noticing only three principally different alternatives: 'to the left of the table', 'above the table' and 'to the right of the table' (Figure 1). However, in some cases, we may need a finer-grained partition, where 'above the table' would refer to a smaller region of space lying around the vertical line going through the center of the table (Figure 2).

Figure 1. **A coarse-grained partition of the space of the wall: 'to the left of the table' vs. 'above the table' vs. 'to the right of the table'.**

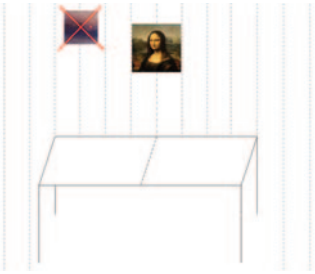

Figure 2. **A finer-grained partition of the space of the wall: 'right above the table' vs. all other alternatives.**

Arguably, this function of =*ok* can be described as similar to the previous one. Zooming in means considering more alternatives that would have been overlooked without it: we take into account not only the most salient alternatives, but also the less salient ones.

4.3. =*ok* with similative constructions

With similative constructions, =*ok* also indicates a greater degree of precision. Consider (60a) and (60b) (the latter is taken from a text). The semantic import of =*ok* can be compared to that of English *just*:

(60) a. *śeŕoža-na tože mə̑ń gań-em, äťä-žə̑ gań*
S.-POSS.1PL also I like-POSS.1SG father-POSS.3SG like
'Our Serjoža is like me, like his father.'

b. *seŕoža-na tože mäń gań-em=**ok**, äťä-žä*
S.-POSS.1PL also I like-POSS.1SG=**EMPH** father-POSS.3SG
*gań=**ok*** (Mikrjakovo corpus)
like=**EMPH**
'Our Serjoža is just like me, just like his father.'

(61) *tədə-n käp-šä vaśa gaň(=**ok**)*
that-GEN body-POSS.3SG Vasja like(=**EMPH**)
'He is (just) as tall as Vasja.'

In (61), *=ok* again helps us to zoom in. If we classify people's heights into classes of comparison, we may do so with different degrees of precision. If we assume a more coarse-grained classification, two people's heights may be counted as equal, but in a finer-grained classification they may still belong to different classes. An utterance with *=ok* implies that the two people's heights belong to the same comparison class even under a classification which is fine-grained enough.

4.4. *=ok* with caritives

In Hill Mari, caritive meaning ('without') is usually expressed with one of the following markers: caritive case *-de* or a complex construction consisting of two postpositions *gəc pasna* 'without', lit. 'from except'. Both constructions attach *=ok* with a peculiar interpretation that does not have any parallels in other uses of *=ok*, namely scalar additive interpretation.

(62) *vlaďislaf kupŕijanôf-ôm ekzamen-de=**ok** muzi̯kaľnôj*
V. K.-ACC exam-CAR=**EMPH** musical
učiľišš-äškä prinimaj-a-t (Mikrjakovo corpus)
college-ILL accept-NPST.3-PL
'Vladislav Kuprijanov got accepted to the musical college even without taking EXAMS.' {let alone having any other difficulties}

Consider the difference between (63a and b).

(63) {A person is going to repair a roof. His wife suggests asking Vasja to help. He answers:}

a. *vaśa gəc pasna=**ok** cilä äšt-äš li-eš*
V. from apart=**EMPH** all do-INF become-NPST-3SG
'I'll manage to do everything even without Vasja.' {No need to call Vasja.}

b. *vaśa gəc pasna cilä äšt-äš ak li*
V. from apart all do-INF NEG.3SG become.CN
'Without Vasja, I won't manage to do everything.' {Call Vasja.}

c. # *vaśa gəc pasna=**ok** cilä äšt-äš ak li*
V. from apart=**EMPH** all do-INF neg.3SG become.CN
Intended: 'Even without Vasja, I won't manage to do everything.'

Possible context: {Don't call Vasja, as he would only interfere and to nothing.}

In (63a), Vasja would be a welcome help, but the roof can be repaired even without him. (63b) is a positive answer: without Vasja the task won't be fulfilled, but with Vasja, it will. In this context, *=ok* cannot be attached to the caritive: (63c) is pragmatically odd and only possible if the speaker considers Vasja an additional problem, who can only hinder the process.

The contribution of =*ok* in (62, 63) is one that we haven't encountered yet, namely additive. In particular, it presupposes that some other salient focus alternative is true. As the caritive constituent is focused, in each case two salient alternatives are 'without Vasja' and 'with Vasja'. In (63a), presupposing the 'with' alternative is pragmatically coherent, but in (63c), it yields a contradiction (supposing that we consider Vasja to be a welcome help):

a. 'I'll manage to do everything with Vasja' presupposed
'I'll manage to do everything without Vasja' asserted

c. 'I won't manage to do everything with Vasja' presupposed
'I won't manage to do everything without Vasja' asserted.

(c) is only felicitous in a context where we would be able to accommodate the necessary presupposition, i. e. Vasja is an obstacle rather than a welcome help — for example, if he would only interfere and do nothing. This is indeed the case, according to our speakers' comments.

Apart from functioning as a caritive case marker on nouns, *-de* also attaches to verbal stems and forms negative converbs (V-*de* 'without doing V'). The scalar additive interpretation arises with converbial *-de* as well.

(64) *universitet-əm pətärä-de=**ok** mäń tə̑md-e-m*
university-ACC finish-CAR=**EMPH** I teach-NPST-1SG
'I teach even without finishing university.'

4.5. =*ok* with contrastive topics

Hill Mari has a way of morphological marking of contrastive topics by third person possessive, which is not obligatory but very frequent in natural discourse.

(65) *mäń-**žə̈** oršank-ə̑štə̑ pətäriš tämeń-ən-äm,*
I-POSS.3SG Orshanka-IN in_the_beginning study-PRF-1SG
a institut-šə̑-m pətär-en-äm zaočno,
CONJ institute-POSS.3SG-ACC end.CAUS-PRF-1SG in_absentia
*a nad'a-**žə̑** jošk ə̑rə̑la-štə̑ tämeń-ən* (Mikrjakovo corpus)
CONJ Nadja-POSS.3SG Yoshkar_Ola-in study-PRF[3SG]
'In the beginning, I studied in Orshanka. I graduated from the institute after studying in absentia, and Nadja studied in Yoshkar-Ola.'

Arguably, the semantics of the third person possessive does not come down to contrastive topicality (Плешак, Хомченкова 2019). Rather, instances of contrastive topic simply fall into another natural class, presumably defined by membership in a discourse-given set (see Simonenko 2014 for Meadow Mari). However, contrastive topic instances of 3rd person possessive are quite frequent, and it is those instances that can attach =*ok*.

Contrastive topics bear a not-at-issue component quite similar to exhaustivity (on the nature of this component, see Büring 2014). Consider English example (66):

(66) [*This pear*]$_{CT}$, *I will have for my breakfast.*

(66) is felicitous in a context, where (a) besides the pear, there is one or several items (another pear or an apple), and (b) the fate of being eaten for breakfast awaits only the pear in question, while other items are going to be

preserved. This not-at-issue component is often strengthened by the exhaustive presupposition introduced by *=ok*:

(67) *no osnovnoj-ž=**ok** kogo-rak klas-vlä-štə izučaj-alt-ə̑t*
but main-POSS.3SG=**EMPH** big-ATT class-PL-IN study-DETR-NPST.3PL
lit'eratur-ə̑štə̑ (Mikrjakovo corpus)
literature-IN
'But as for the main part, it is usually studied in the senior school in the Literature class.'

We argue that in this case, *=ok* bears its regular exhaustive interpretation.

A common pragmatic function of the combination of third person possessive and *=ok* is fixing the scope of negation. While Hill Mari has constituent negation, another strategy can be employed instead: the constituent that is to be negated is contrastively topicalized, and the negated verb bears a verum focus accent. It is exemplified in (68):

(68) [*šären-ž*]$_{CT}$=***ok*** *tokə̑-na* [*A-NA* *kašt* *ə̑l'ə̑*]$_{FOC}$
often-POSS.3SG=**EMPH** home-1PL NEG.NPST-1PL go.CN be.AOR[3SG]
'We seldom went home.' {while on vacations}

A translation of (68) reflecting the information structure of the original sentence more accurately would be 'As for often, the going-home event cannot be characterized with this frequency'. The contrastive topic in (68) presumes a set of discourse questions of the following kind:

(i) 'Did we go home often?'
(ii) 'Did we go home once a month?
(iii) 'Did we go home regularly?'
(iv) 'Did we go home sometimes?'

(68) is a negative answer to (i). But, just as it was the case in (66), (68) implies that this kind of answer is only true for (i) but not for (ii)—(iv). There are only two possible answers for general questions such as (ii—iv), namely positive and negative. So, contrastive topic in (68) entails that questions (ii)—(iv) have positive answers. This is why (68) has the following resulting interpretation: 'We did go home, but not regularly.'

In a similar vein, (69) has an interpretation 'She does speak Mari, but not very well':

(69) *kogon-ž=**ok** a-k popə̑*
very-POSS.3SG=**EMPH** NEG.NPST-3[SG] speak[CN]
'She speaks {Mari} not very well.'

4.6. Lexically or semantically-conditioned functions: summary

In this section, we have listed several lexically-conditioned functions of *=ok*. It is by no means an exhaustive list. We did not discuss, e.g., *=ok* with imperatives, with converbs and other temporal expressions, or in combination with the word *lač* 'only, exclusively'. However, it is clear that several relatively frequent uses that we have outlined already give the impression of a complicated network of readings.

The readings arising with quantifiers, spatial expressions and similative constructions are clearly quite close to each other: in those cases, *=ok* denotes what we have informally dubbed as zooming in. In the case of quantifiers,

we enlarge the domain of quantification, including less salient instances. Spatial expressions and similative constructions do not involve quantification, but in these cases, an utterance with =*ok* also considers more alternatives than the utterance without =*ok*. However, it remains to be seen whether there can be done a compositional analysis explaining the semantic contribution of =*ok* in the aforementioned cases and its inability to appear in some other contexts. For example, =*ok* cannot mean something like 'precisely' in combination with numerals:

(70) *kok edem=**ok** tol-ə̑n-ə̑t*
two person=**EMPH** come-PRF-3PL
1. 'It's two people that came' (exhaustive)
2. 'Again, two people came' (counteradditive)
3. # Exactly two people came.

5. The Hill Mari =*ok* in an areal-typological perspective

Linguistic theory has two principally different ways to explain complex phenomena, and in particular, tricky polysemy patterns. One is internal analysis of meaning, which can show that what seems a handful of diverse functions has a non-trivial common core or, perhaps, is in fact multiple manifestations of a single function (for an example see Coppock, Beaver 2014). Another one is considering the external history of the phenomena: its many complications may be due not to some or another internal logic, but due to a series of unconnected events in the history of language. For example, Grossman and Polis (2017) discuss one case of adposition borrowing from Greek into Coptic, which shows that disjoint functions on the semantic map can be borrowed apparently independently from each other, thus forming a typologically unexpected polyfunctionality pattern.

As we have already said, an important fact about =*ok* is that it is a loanword into Hill Mari from Turkic, and Hill Mari is by no means the only language that borrowed this particle. Let us now put =*ok* into an areal perspective. Hill Mari belongs to the Volga-Kama Sprachbund along with, at least, Chuvash, Tatar, Bashkir (< Turkic), Meadow Mari and Udmurt (< Finno-Ugric). As more peripheral members, Mordvinic and Komi languages (< Finno-Ugric) are also included in the Volga-Kama Sprachbund (Johanson 2000; Helimski 2003).

The Volga-Kama languages share a considerable number of common features in morphology, syntax and lexicon (Beke 1914—1915; Серебренников 1960; Johanson 2000; Helimski 2003; Agyagási 2012). One property of interest for us shared by the core members of the Sprachbund is the presence of exhaustive particles cognate to =*ok*. Table 1 provides data on the distribution of these particles across the languages of the Sprachbund.

The particles listed in Table 1 all go back to the same source, namely to the Proto-Turkic *=*ok*. Its earliest appearance in texts dates back to the Old Turkic period, i.e. to manuscripts attributed to the 7th—13th centuries (Erdal 2004 : 342):

(71) Old Turkic
*maytri bodisavt ol=**ok** oron-ta olor-up...*
Maitreya bodhisattva that=**EMPH** place-LOC sit-CVB
'The bodhisattva Maitreya sat down in that very place…'.

Table 1

Cognates of the Hill Mari particle =*ok* in the Volga-Kama languages

	Language	Genealogical affiliation	Exhaustive particle
Core	Chuvash	< Bulgar < Turkic	*-ax/-ex* (Егоров 1957 : 332)
	Tatar	< Northern Kipchak < Turkic	*-uk/-ük* (Татарская грамматика 1993 : 361)
	Bashkir	< Northern Kipchak < Turkic	*-uk/-ük* (Юлдашев 1981 : 329)
	Hill Mari	< Mari < Uralic	*-ok* (Саваткова 2002 : 269)
	Meadow Mari	< Mari < Uralic	*-ak* (Пенгитов 1961 : 301)
	Udmurt	< Permic < Uralic	*-ik* (Winkler 2001 : 62)
Periphery	Komi-Zyrian	< Permic < Uralic	–
	Erzya	< Mordvinic < Uralic	–
	Moksha	< Mordvinic < Uralic	(*-kə/-k* suffix on demonstrative pronouns, own fieldwork)

In Turkic languages of the area reflexes of *=*ok* are inherited from the protolanguage, whereas in Finno-Ugric languages the corresponding particles are considered by several researchers to be borrowings from Chuvash (Wichmann 1903 : 37; Галкин 1964 : 183—184; Wichmann, Korhonen, Uotila 1987 : 65; Федотов 1990 : 119).

This is supported by the distribution of these particles in the Turkic and Finno-Ugric languages: none of the Uralic languages outside the Volga-Kama area feature counteradditive particles phonologically similar to *=ok*, including Komi-Permyak and Komi-Zyrian, which are close relatives of Udmurt.[8] On the other hand, reflexes of *=ok* are present in many Turkic languages outside the Volga-Kama area: Altai, Baraba Tatar, Kazakh, Kyrghyz, Kumyk, Nogay, Tofalar, Uzbek, Uighur, Khakas, Shor (Şahin 2009; Закирова 2019).

The two major readings described for the Hill Mari *=ok*, counteradditive and exhaustive, are available for cognates of *=ok* in most Volga-Kama languages. However, the details of semantics and syntax of counterparts of *=ok* differ significantly across the area. For example, while Chuvash, Hill and Meadow Mari and Udmurt allow for a counteradditive reading of the particle on all types of NPs, e.g. (72), in Tatar and Bashkir *=uk/=ük* is very rare on NPs and is conditioned by some factors that require further investigation. For example, the Tatar counterpart of the example (72) is ungrammatical (73), however, *=uk/=ük* seems to be licit in (74):

(72) Chuvash
maša paxča-ra ĕçl-eť, ača-sem-pe=te
Mary garden-LOC work-NPST[3SG] child-PL-INSTR=ADD
mašax *lar-ať*
Mary.EMPH be_positioned-NPST[3SG]
'Mary works in the garden and she also babysits.'

(73) Tatar
märjäm* *bakča-da* *ešl-i,* *märjäm=ük*** *bala-lar-nɤ=da*
Mariam garden-LOC work-PRS.3SG Mariam=**EMPH** child-PL-ACC=ADD
kar-ɤj
watch-PRS[3SG]

[8] The only exception we are aware of is the Kamas particle *bāzoˀ* (< *paza ok* 'also, too'), which, according to Klumpp 2022 : 241, is a borrowing from South Siberian Turkic.

Intended meaning: 'Mary works in the garden and she also babysits.'

(74) Tatar
*kem kʏlʏč belän kil-ä, kʏlʏč-tan=**uk** ül-ä*
who sword with come-PRS.3SG sword-ABL=**EMPH** die-PRS.3SG
'Who comes with a sword, will die by the sword.'

The counteradditive reading of demonstratives (Dem) marked by counterparts of *=ok* is possible in all languages considered; however, here again Tatar and Bashkir differ from the rest of the Volga-Kama Sprachbund. In all languages considered, adnominal modifiers precede nouns (N). However, while in Chuvash, Hill and Meadow Mari, and Udmurt the particle attaches to the noun (Dem N=*ok*) (75), in Tatar and Bashkir it follows the demonstrative pronoun (76) (Dem=*ok* N).

(75) Chuvash
*kušak çak kun=**ax** / *çak=**ax** kun šəši tɨt-r-ë*
cat that day=**EMPH** *that=**EMPH** day mouse hold-PST-3[SG]
{I took a cat from the street.} 'The same day the cat caught a mouse.'

(76) Tatar
*hättä kibet-tä=dä šul=**uk** satučʏ / *šul satučʏ=**uk***
even shop-LOC=ADD that=**EMPH** shop_assistant *that shop_assistant=**EMPH***
kal-gan
stay-PRF[3SG]
{Nothing changed in this town.} 'Even in the shop there remained the same shop assistant.'

Similarly, the exhaustive reading introduced in Section 3.2 is available in all languages of the Sprachbund (cf. example (77) from Beserman Udmurt), with the exception of Tatar and Bashkir (78).

(77) Beserman Udmurt
{Fedya told me that somebody has beaten you. Who was that?}
*fedʹa=**ik** mânâm šukk-iz*
Fedya=**EMPH** I.DAT beat-PST.3SG
'It was Fedya who has beaten me.'

(78) Tatar
ni-gä sez ulʏ-gʏz-ga šamil(=**ük**) di-p isem(*=**ük**)*
what-DAT you son-POSS.2PL-DAT Shamil(*=**EMPH**) say-CVB name(*=**EMPH**)
kuj-dʏ-gʏz?
put-PST-PRS.2PL
'Why did you give your son the name Shamil, of all names?'

The particle is also found on adverbials with the same counteradditive (79) and exhaustive (80) readings:

(79) Meadow Mari
*medpunkt — derevánnyj šükšü pört, tu-št=**ak** mo medpunkt*
first-aid_post wooden old house that-in=**EMPH** what first-aid_post
*kudveč-əšt=**ak** mo...* (http://lingconlab.ru/spoken_meadow_mari/)
yard-in=**EMPH** what
'The first-aid post is a wooden old house, there also… in the yard of the first-aid post, again…' [there is a barn].

(80) Meadow Mari
*no, uže kəzət=**ak***
INTJ already now=**EMPH**
tüŋal-man uže (http://lingconlab.ru/spoken_meadow_mari/)
begin-DEB already
'It is right now that it should start.'

Our findings corroborate the claim that the availability of being hosted by a finite verb is a relevant parameter. We have shown in Section 2 that in Hill Mari, the exhaustive reading is, and the counteradditive reading is not licit on finite verbs. This is a generalization that holds across the Volga-Kama Sprachbund. On verbs, cognates of *=ok* behave differently from other types of constituents: in the Volga-Kama languages counteradditive readings of *=ok* are ruled out (81—82), although they are possible at least in one Turkic language outside of the Volga-Kama area, namely Khakas (83). In Khakas, the particle *=ox* has counteradditive interpretation (83a), which is available on finite verbs as well (83b):

(81) Beserman Udmurt
*****maša už-a, ańa=no uža=**ik***
Mary work-NPST.3SG Ann=ADD work-NPST.3SG=**EMPH**
Intended: 'Mary is working, and Ann is also working.'

(82) Chuvash
*****maša ӗçl-et', ańa=ta ӗçl-et'=**ex***
M. work-NPST.3SG A.=ADD work-NPST.3SG=**EMPH**
Intended: 'Mary is working, and Ann is also working.'

(83) Khakas
a. *min ol=**ox** aal-da čurta-pč-am* (Баскаков 1975 : 249)
I that=**EMPH** village-LOC live-PRS-1SG
'I live in the same village.'

b. *anda vot aallan-ar-bɨz=**ox***
that.LOC here be_guest.REFL-FUT-1PL=**EMPH**
ol toj-da (http://lingconlab.ru/spoken_khakas/)
that wedding-LOC
'We will also be guests at this wedding.' {among other guests}

Rather, in the Volga-Kama area cognates of *=ok* on verbs have verum focus readings (84), which we had previously analyzed as a subclass of emphatic readings (we do not have data on non-verum focus exhaustive reading, the elicitation of which requires detailed fieldwork). In Kipchak languages, where the exhaustive reading is in general disallowed, the verum focus reading is absent, too (85).

(84) Beserman Udmurt
*mə̑n-i=**ik***
go-PST.1SG=**EMPH**
{I thought for a long time, if I should go or not.} 'I went, after all.'

(85) Tatar
ul bulʏš-a=uk***
that help-PRS.3SG=**EMPH**
Intended: 'She WILL help, after all.'

The contexts of use and the readings of =*ok*'s counterparts are summarized in Table 2:

Table 2

Readings of =*ok* on different hosts across the Volga-Kama Sprachbund

	NP		Dem NP		Adv		$Verb_{FIN}$	
	counter-additive	emphatic	counter-additive	emphatic	counter-additive	emphatic	counter-additive	emphatic
Hill Mari	+	+	+	+	+	+	–	+
Meadow Mari	+	+	+	+	+	+	–	+
Udmurt	+	+	+	+	+	+	–	+
Chuvash	+	+	+	+	+	+	–	+
Tatar	–	–	+	–	+	+	–	–
Bashkir	–	–	+	–	+	+	–	–

Table 2 shows that the uses of cognates of =*ok* in Chuvash, Udmurt and Mari are similar, while Tatar and Bashkir pattern differently. This can be interpreted in at least three ways.

The first possibility is that Chuvash is conservative, and Tatar and Bashkir innovative. If this is the case, at the Proto-Turkic stage =*ok* had approximately the repertoire of uses that it now has in Chuvash and in the Finno-Ugric languages of the area. In Tatar and Bashkir, on the other hand, the use of =*ok* has declined.

The second possibility is that Tatar and Bashkir are closer to the Proto-Turkic state, while in Chuvash =*ok* became much more productive and was transferred into the Finno-Ugric languages of the area with the whole range of its contexts.

Finally, it may be the case that the proto-language had a range of contexts different from both Chuvash and the Kipchak languages of the area. While we do not have access to Proto-Turkic, at least written records in Old Turkic and Chagatai are available. Although we have not conducted a full-fledged study of the matter, a brief search in grammars of these languages already yields promising results. Erdal's Old Turkic grammar (2004) contains examples of a verum focus reading on verb (86). Another example from Chagatai grammar (Щербак 1962) illustrates an exhaustive reading of =*ok* on an NP.

(86) Old Turkic
*öl-ür-täči=**k**=**ök***
die-CAUS-PTCP.FUT=**EMPH=EMPH**
'He will really kill us.' (Erdal 2004 : 343)

On the other hand, we can see from (71) that in Old Turkic =*ok* attached directly to the demonstrative and not to the right edge of the DP. Thus, the situation in the Proto-Turkic could have been different both from Chuvash and Kipchak, but at least Chuvash was not unique in having uses of =*ok* shown in Table 2. We can thus conclude that at least some uses of =*ok* were lost in Tatar and Bashkir.

The fact that all languages of the Volga-Kama Sprachbund share the restriction against the counteradditive reading of the exhaustive particle on verbs

may be interpreted as an areal feature, as the use of a cognate particle is found in Khakas. On the other hand, as we pointed out above, there is a cross-linguistic tendency for languages to restrict the use of focus particles on verbs. So we can consider the counteradditive use in Khakas as a typological rarum.

We would like to mention one more use of *=ok* that is absent in Hill Mari but is important for *=ok*'s counterparts in the Volga-Kama region. Finno-Ugric languages of the Volga-Kama area express standard negation via analytic construction with a negative auxiliary that agrees with the subject and a connegative form of the verb. Udmurt *=ik* and Meadow Mari *=ak* can cliticize to the negative auxiliary and have scalar additive interpretation:

(87) Meadow Mari[9]
keč körg-əštə-žö teńge-aš šij oksa jəlgəž kijə-žə
at.least inside-IN-POSS.3SG rouble-ATTR silver money glitter.CVB lie-OPT
*o-m=**ak** puro*
NEG.NPST-1SG=**EMPH** enter.CN
'Let there be a glittering silver coin inside — I won't even enter.'

(88) Eastern Mari (Bashkortostan varieties)
*o-t-**ak** pale tud-əm*
NEG.NPST-2SG=**EMPH** know that-ACC
'You won't even recognize him.' (Sebeok, Ingemann 1961 : 66)

(89) Beserman Udmurt
*so mon pala ug=**ik** učk-ə*
that I towards NEG.3SG=**EMPH** look-CN
'He doesn't even look in my direction.'

(90) Hill Mari
*tədə mən′ vək-em a-k=**at** anžə /*
that I up-POSS.1SG NEG.NPST-3=ADD look.CN[SG]
a-k=ok** anžə / *ag-eš=**ok** anžə*
NEG.NPST-3=**EMPH** look.CN[SG] NEG-NPST-NPST.3SG=**EMPH** look.CN[SG]
'He doesn't even look in my direction.'

Particles ambiguous between exhaustive and scalar additive interpretation, the latter available only in presence of negation, are attested cross-linguistically (see Erlewine, New 2021 for an analysis of a Burmese focus particle, with a review of cases of a similar polysemy attested worldwide). While Hill Mari *=ok* does not have the scalar additive reading on negated verbs, it may have been there on some earlier stage. Remember that Hill Mari *=ok* can have scalar additive interpretation with caritive constructions and negative converbs. This might be a remnant of a wider scalar additive function under negation that disappeared in Hill Mari but is preserved in other Volga-Kama languages.

In general, at least some puzzles about syntax and semantics of Hill Mari *=ok* may be explained if we understand an areal distribution of the features of *=ok*'s counterparts in Volga-Kama languages, both in synchrony and diachrony. Georgieva, Salzmann and Weisser (2020) develop a structural account within the framework of Distributed Morphology to explain the morpheme order in Mari verbal complex. While this is a good example of a language-internal (or biocognitive in terms of Haspelmath 2021) explanation,

[9] Andrei Čemyšev, p.c.

we would like to propose a language-external explanation to a group of facts of a similar kind.

As we have pointed out, in Hill Mari, *=ok* can be attached to finite verbs. When the verb is negated, *=ok* attaches not to the negative auxiliary, but to the connegative verb form (or, in other words, appears on the right edge of the whole negative construction):

(91) *a-k tol=**ok***
NEG.NPST-3 come.CN[SG]=**EMPH**
'He is not coming, eventually.'

Another ubiquitous Hill Mari focus particle, the standard additive *=at* 'also, too', can also modify verbs. It cliticizes to the negative auxiliary:

(92) *a-k=at tol*
neg.NPST-3=ADD come.CN[SG]
'He is not coming, either.'

There might be an internal syntactic explanation for this fact, but at least not an obvious one: both *=at* and *=ok* have wide scope with respect to negation, and apart from this peculiar fact, the syntax of *=at* and *=ok* is quite similar. On the other hand, the history of language interaction readily provides an external explanation. While *=ok* is a loan, *=at* has a Finno-Ugric origin. Note that *=at* behaves in a more expected way (if a marker modifies a construction, it is expected to be hosted on the head of the construction rather than on its dependents, cf. Zwicky 1985): it is the behaviour of *=ok* that is deviating and needs an explanation. We tentatively propose the following one: *=ok* is a clitic that attaches to multiple types of hosts. However, it has probably been borrowed not as a separate lexical item, but by way of calquing certain Chuvash constructions where it was present. Chuvash has no negative auxiliaries: it expresses negation by means of a bound morpheme. Thus, the only possible place for the emphatic clitic is to the right of the verbal form.

(93) Chuvash
*vəl kil-mest=**ex***
he come-neg.NPST.3SG=**EMPH**
'He is not coming, eventually.'

We propose that the whole pattern was copied into Hill Mari from Chuvash along with the matter borrowing of the particle. The Chuvash synthetic verb form was replaced with Hill Mari analytic construction with a negative auxiliary, but the original position of the particle on the right edge of the construction was retained.

Finally, we would like to mention that the colexification pattern typical of *=ok* and its counterparts is by no means restricted by the Volga-Kama Sprachbund. Particles with a similar distribution are found at least in one branch of the East Caucasian family, namely in the Avar-Ando-Tsez branch, cf. Avar *=go*, Andi *=gu*, Karata *=da*, Tsez *=tow* etc. The different uses of the Avar *=go* and its diachrony have been described in detail in Forker 2015. Particles of this type are labeled by the author as *intensifying particles*, which emphasizes the functional similarity of these particles to SELF-intensifiers (König, Gast 2006). Forker (2015) provides a semantic map based on the data of Avar, Bagvalal, Hinuq and Hunzib, which includes the following functions: identity, reflexive, scalar additive, contrast & emphasis, derivation

of indefinite pronouns. While it is not immediately clear how to map some of those functions onto Hill Mari, in general the colexification pattern looks quite similar.

The examples below illustrate counteradditive (94), verum focus (95), and scalar additive under negation (96) readings from Andi (< Avar-Andic < East Caucasian).

(94) Andi Proper[10]
hegel-di hege-j-il ikʷonn-ja j-okʼʷo-dːu, tsʼːad-oll-ja
this.OBL-ERG this-AN.PL-PL eat.CAUS-FUT AN.PL-PL.be-PRF drink-CAUS-FUT
j-okʼʷo-dːu, onʃːi=lo=lo b-ulinn-ja b-ikʼʷo-dːu
AN.PL-PL.be-PRF after=ADD=ADD AN-SG.go-FUT N1-be-PRF
*reʃː-tɬi=**gu*** (Magomedova, Alisultanova 2010)
forest-INTER=**EMPH**
{The little goats will open the door and let their mother in}. She will feed them, give them water and go to the forest again.'

(95) Zilo Andi
*hege-ʃ-di χʷːetʃi=**gu** gurdo r-otʃʼo* (authors' own fieldwork)
this-M.OBL-ERG green=**EMPH** shirt N2-choose.AOR
'He chose the green shirt, after all.'

(96) Andi Proper
*j-i=ɢodːu hege-j reʃː-tɬi hekʼʷa=**gu** w-oqχi-dosːja*
F-come=REP this-F forest-INTER person=**EMPH** M-reach-FUT.NEG
dʒahan_daman-no (Magomedova, Alisultanova 2010)
hell-SUP.LAT
'In the forest, she came to the place where not even one person has stepped foot.'

Thus, the polysemy pattern exhibited by *=ok* seems to be cross-linguistically recurrent not only within the borders of the Volga-Kama Sprachbund, but also beyond it.

6. Conclusion

In this paper, we have described some of the uses that the Hill Mari particle *=ok* has. We have shown that its two major readings are counteradditive and exhaustive. For the counteradditive reading, we have proposed a semantic analysis that captures its similarity to additive particles but highlights the difference, namely that counteradditive particles attach to the repeated constituent and not a newly introduced one. As for the exhaustive reading, we showed that it boils down to a combination of exhaustivity and givenness. We argued that the two readings are distinct by comparing the possible hosts for both readings: whereas the counteradditive reading is impossible if the particle attaches to the verb, the exhaustive reading is possible with *=ok* on verbs and surfaces as a verum focus reading.

Besides counteradditive and exhaustive, *=ok* has numerous other readings, that only surface in combination with a certain type of hosts, restricted lexically or semantically. We described several of them, specifically focusing on the interaction between the host and the particle *=ok*, and concluded that for

[10] For the Andi examples, the apostrophe (') marks the ejective feature of the consonant.

quantifiers, spatial expressions, and similative constructions, the semantic effect of *=ok* may be described as "zooming-in": *=ok* signals that a wider range of alternatives should be considered, including the less salient ones. With caritive constructions, the contribution of *=ok* is scalar additive; this reading of *=ok* is not found in other contexts in Hill Mari but is prominent under negation in other languages of the area. Moreover, *=ok* attaches to constituents marked for contrastive topic; this construction is particularly frequent as a means to express constituent negation. We propose that in this use, the contribution of *=ok* is exhaustive.

Finally, we have put *=ok* into an areal perspective. We have compared the two major uses of *=ok* in the Volga-Kama languages and found that Chuvash, Hill and Meadow Mari, and Udmurt pattern rather similarly: they allow the same counteradditive and exhaustive interpretations on NPs and adverbs but only the exhaustive interpretation (verum focus) on verbs. This, however, is not a trivial restriction, as another Turkic language, Khakas, allows for a counteradditive reading on verbs.

One point where variation is observed is negated verbs. In all Finno-Ugric languages of the area, counterparts of *=ok* attach to the negative auxiliary with a scalar additive interpretation. In Hill Mari, however, *=ok* attaches to the lexical verb. We propose an external, contact-based explanation for this phenomenon.

A thorough investigation of semantics and distribution of exhaustive particles in the Volga-Kama languages, which remains to be done, will help us see which constellations of readings appear together not coincidentally and which colexifications are epiphenomena of historical occasions of language contacts.

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Abbreviations

1 — first person, **2** — second person, **3** — third person, ABL — ablative, ACC — accusative case, ADD — additive particle, AN — animate gender, AOR — aorist, ATT — attenuative, ATTR — attributivizer, CAR — caritive, CAUS — causative, CN — connegative form, CONJ — conjunction, CT — contrastive topic, CVB — converb, DAT — dative, DEB — debitive, DESID — desiderative, DETR — detransitive, EMPH — emphatic

particle, ERG — ergative, EX — existential copula, F — feminine gender, FIN — finite, FOC — focus, FUT — future, GEN — genitive, ILL — illative, IMP — imperative, IN — inessive, INDEF — indefinite marker, INF — infinitive, INSTR — instrumental, INTER — spatial series 'inside', INTJ — interjection, LAT — lative, LOC — locative, M — masculine gender, N1 — neuter gender 1, N2 — neuter gender 2, NEG — negation, NMZ — nominalization, NOM — nominative, NPST — non-past, OBL — oblique stem, OPT — optative, PL — plural, POSS — possessive, PP — postpositional phrase, PRF — perfect, PRS — present, PST — past, PTCP — participle, REFL — reflexive, REP — reportative clitic, SG — singular, SUP — localization on the surface, SUPERL — superlative.

Syntactic categories: Adv — adverbial, **Dem** — demonstrative, **DP** — determiner phrase, **N** — noun, **NP** — noun phrase, **V** — verb.

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ЧАСТИЦА *=ok* В ГОРНОМАРИЙСКОМ ЯЗЫКЕ И ЗА ЕЕ ПРЕДЕЛАМИ

В статье рассматриваются семантика и дистрибуция горномарийской полифункциональной фокусной частицы *=ok*. Мы описываем две интерпретации *=ok*, которые возможны при присоединении к открытому классу языковых единиц: эти употребления мы называем экстаустивным и контраддитивным. Кроме того, рассматриваются несколько употреблений, которые возможны только с лексически или семантически ограниченным набором опорных слов. Предлагается считать, что частица *=ok* принадлежит к тому же классу выражений с семантическим компонентом экстаустивности, что и английские клефтовые конструкции, а также схожие конструкции в других языках. Обсуждается, какие последствия

горномарийские данные имеют для типологии таких конструкций: поведение частицы *=ok* приводит к выводу, что важным параметром варьирования для таких конструкций является дискурсивная данность денотата фокусной составляющей.

Кроме того, рассматриваются параллели частицы *=ок* в языках Поволжья: луговом марийском, чувашском, татарском, башкирском и удмуртском. Хотя эти частицы в языках Поволжья имеют одно происхождение и в целом похожий набор интерпретаций, их синтаксическое поведение значительно варьируется.

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AMMENDAVUSPARTIKKEL *=ok* MÄEMARI KEELES JA KAUGEMALGI

Artiklis vaadeldakse mäemari polüfunktsionaalse fookuspartikli *=ok* semantikat ja distributsiooni. Kirjeldame kaht tõlgendust, mis kehtivad erinevate sõnaliikide puhul, millele partikkel *=ok* võib liituda: ammendavustarvitust ja lisandumist välistavat (kontraaditiivset) tarvitust; peale selle käsitleme kasutusviise, mis on võimalikud ainult leksikaalselt või semantiliselt tingitud üksuste puhul. Väidame, et *=ok* kuulub koos inglise *it*-tüübiliste lohklausetega ja mõne muu keelteülese vastega selliste keelevahendite klassi, mille abil esitatakse kõnealusest teemast sõltumatuid ammendavaid järeldusi. Arutleme selle üle, mida lisavad mäemari andmed selle konstruktsiooniklassi tüpoloogiale: mäemari *=ok* viitab sellele, et oluline mõõde, mille järgi niisugused elemendid keeliti erinevad, on see, kas fookuse all olev konstituent on diskursuses teada või ei ole. Lisaks võrdleme artiklis mäemari partiklit Volga-Kama piirkonna keelte (niidumari, udmurdi, tšuvaši, tatari, baškiiri) vastetega. Kuigi nende keelendite päritolu ja üldised tähendused on samad, varieerub partikli *=ok* vastete süntaktiline käitumine märkimisväärselt.